Science Lesson Plans

Level 1

Term 2

Science Lesson Plans

Level 1

Term 2

Science Lesson Plans

Level 1
Term 2
Week 1

Week	Curriculum Strand	Topic	Day	Specific Objective	Home work
1	Life Systems	Characteristics & needs of Living things (Human body)	1	To identify & understand the purpose of major bones in the human body.	H.W
1		do	2	To recognize the difference between living and nonliving things	
1		do	3	To recognize the difference between living and nonliving things	H.W
1		Characteristics & needs of Living things (plants)	4	To identify and label parts of a plant: root, stem, leaf, bud, and flower.	
1		do	5	Assessment	

Level 1		Life systems
Term2	Lesson Plan	Human Body
Week 1		
Day 1		

Topic: Characteristics and needs of living things
Objective: To identify & understand the purpose of major bones in the human body.
Activity: Drawing the skeleton
Materials: skeleton model, or poster of a human skeleton,
Skeleton handouts for activity, large white paper sheets or old news papers,
markers
Procedure:
Warm up Q/A

- Ask,
- What did you learn about skeleton in the previous lesson?
- Name the major bones?
- What job does each bone do?
  Activity:
- Divide the students into pairs.
- Give one sheet of paper and a marker to each pair.
- The paper must be as tall as the group member who will be traced.
- One partner will lie down on the sheet of paper while the other partner will trace the outline of his/her body.
- After the tracing is completed.
- Both students will work together to draw and label the major bones of the human body in the drawn outline onto the sheet of paper.
- Tell the students to consult the human skeleton worksheet they worked on in the previous lesson.

Follow-up discussion

- Ask
- What did you learn from this activity?

Activity: 2
Written work in the copies

Q I) Match the bones with their job

Skull **protect lungs and heart**

Legs **protects the brain**

Ribs **help to move**

Spine **keeps the body straight**

H.W: Revise the work done in class.

Level 1		Life systems
Term 2	Lesson Plan	Living and non living
Week 1		
Day 2		

Topic: Characteristics and needs of living things
Objective: To recognize the difference between living and nonliving things
Activity: Observing things
Material: Pictures of people, some animals, a live plant, a live insect, few objects stones, buttons, glass etc.

Procedure:
Warm up Q/A

- Display the objects, and show pictures.
- Ask the children to identify, which things are living and which are non-living.
- Invite the students to give some of their own examples of living things.

Activity: 1

- Pass the insect around in the room.
- Tell the children to observe it.
- Then ask,
- Is it living or not? If yes why?
- How do you know that it is alive?
- (Their responses may include, it moves, eats, breathe)
- Then,
- Pass the plant around the room in the same way and ask the students to tell, if it is living or not and why?
- Then pass the stones or any other non-living object and ask,
- Is it living or not and why?
- What makes it different from insect and plant?
-

Follow up discussion

- Ask,
- What did you learn from this activity?
- How did you identify things as living or non-living?

Explanation

- Make a chart on board (as drawn below).
- Write down the features of living and nonliving things on board to differentiate.

Living things	**Non-living things**
Need food	Do not need food
Breathe	Do not breathe
Grow	Do not grow
Move	Do not move
Reproduce (make more like themselves)	Do not reproduce

-
- Explain, What a living thing is?
- What makes a living thing different from a non-living thing?
- What do living things need to stay alive?
- Show them, insect, plant and any other nonliving object.
- Explain the characteristics of living and non-living things
  By making comparison.

Activity: 2 Worksheet

- Distribute the worksheet and explain the task.

Wrap-up Q/A

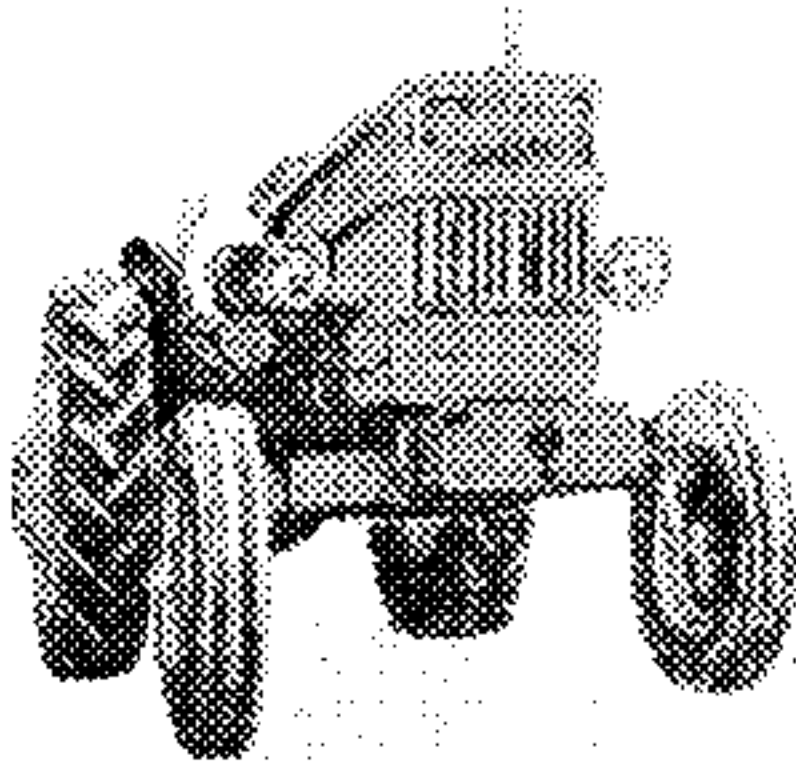
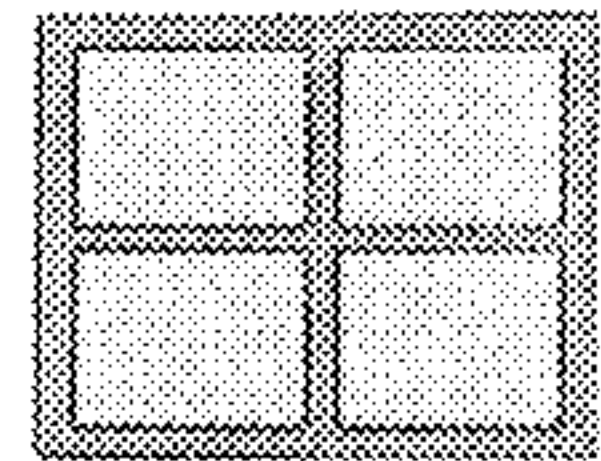
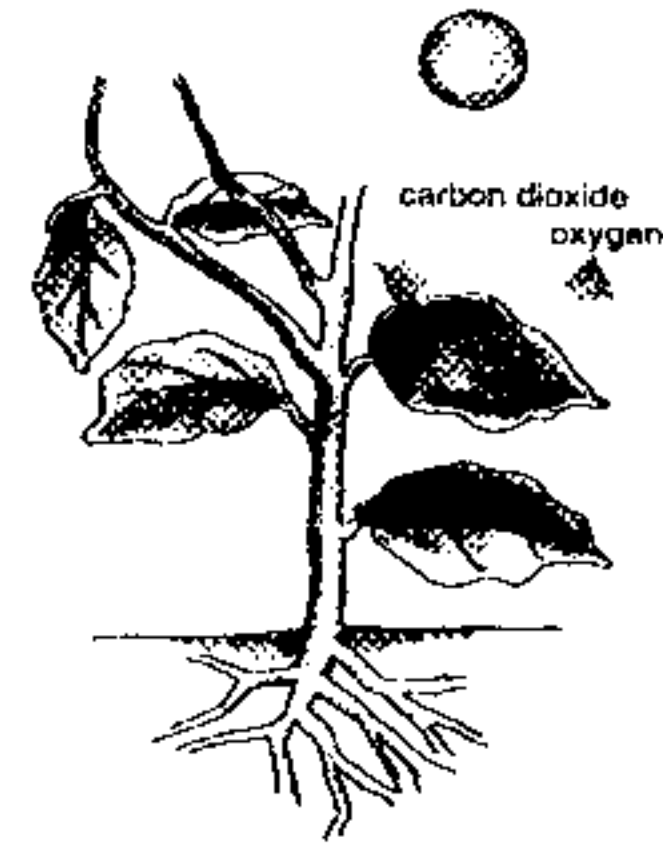
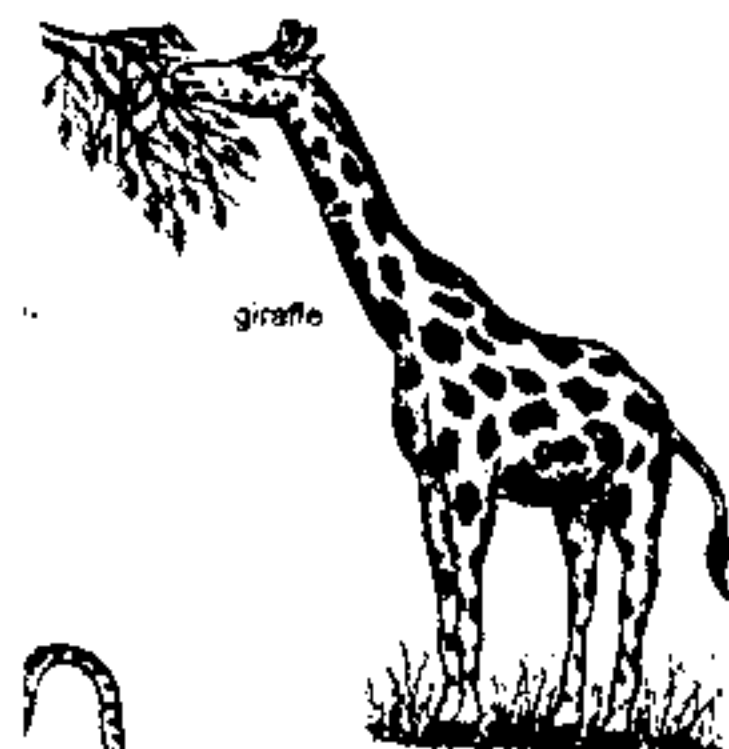
- Read over the chart and ask,
- What are the characteristics of living things?
- What are the characteristics of non-living things?

Level : 1 Term : 2

Week : 1 Day : 2

Living or Non-living

Worksheet

Write living or non-living with the pictures?

Level 1		Life systems
Term 2	Lesson Plan	Living and non living
Week 1		
Day 3		

Topic: Characteristics and needs of living things
Objective: To recognize the differences between living and nonliving things
Activity: Written work

- **Materials:** Worksheet, chalk, pencils, colours.

Procedure:
Activity: written work

- Write the task on the board and explain.

Task: 1
Draw and colour 3 living things.

- Distribute the worksheet and explain the task

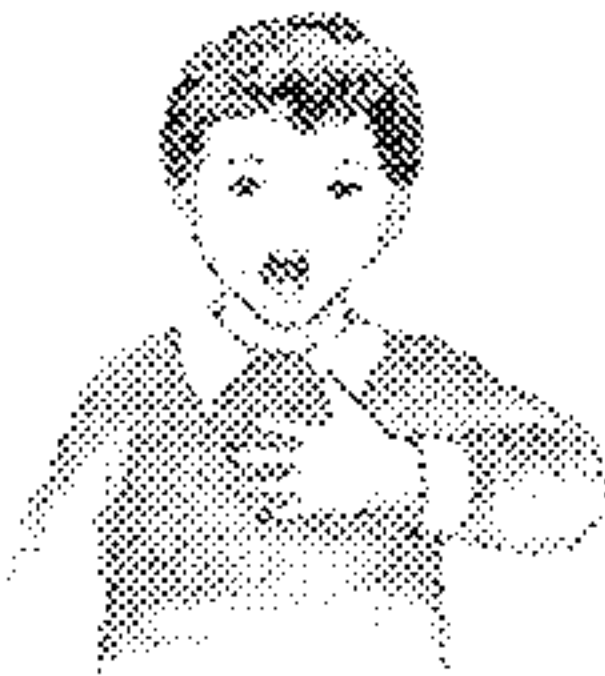
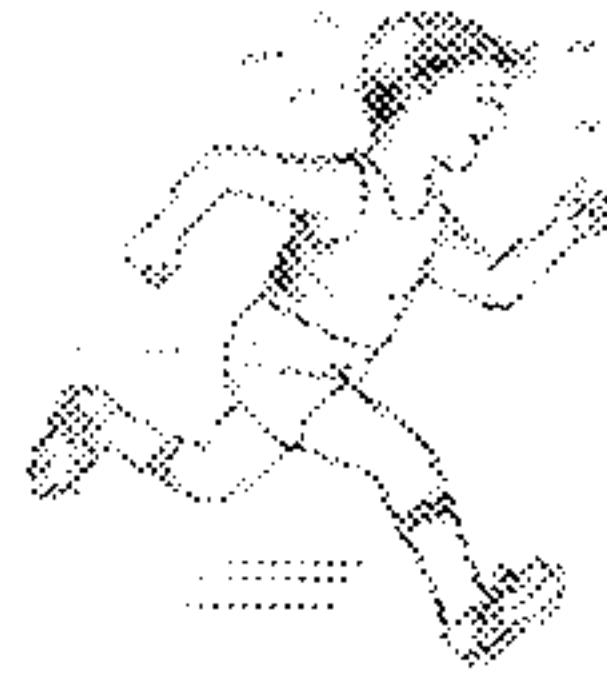
Level : 1   Term : 2

Week : 1   Day : 3

Living And Non Living
Worksheet

Task: 2

Choose the right sentence from the given list and write under the corresponding picture.

List: Living things need food, Living things can grow, Living things reproduce, Living things can move, Living things breathe.

Plants

Level 1		Life Systems
Term 2	Lesson Plan	(Plants)
Week 1		
Day 4		

Topic: characteristics and needs of living Things
Objective: Students will be able to identify and label parts of a plant: root, stem, leaf, bud, and flower.
Activity: Constructing a plant mobile

Materials:
Live plant(s)
Plant parts cutouts made with chart paper by simply drawing the out line and with holes at one end to tie. One whole set of plant parts for each group should be there.
Yarn
Markers
Hangers or stick
Tape
Scissors
Colour pencils or crayons.

Procedure:

- Before beginning the lesson, make sure you bring in at least one live plant for the classroom.

Warm-up Q/A

- Ask the students, to recall what they have learnt about living things.
- Then ask,
- Do you think plants are living things? Why?

Activity: 1

- Introduce the plant you have brought in.
- Ask, "Do you have plants at home?
- Have you ever observed they also have different parts just like we have?
- Can you name any and/or all of the parts of the plant.

Explanation:

- Using student input, write only the parts (not the function) on the board.
- Show them the plant you have brought.

Explain,

- Roots are the lowest part and they are in the soil.
- Stem is the long part above the ground.
- Leaves are attached to the stem.
- Buds are unopened flowers and are at the top.
- Flowers are the top part of the plant.
- Ask questions to know whether they have understood or not.
- Which part is this? By pointing towards each part.

Activity: 2

- Inform students that they will construct a plant mobile.
- Divide the students into groups of five or more as per your class strength.
- On a large table, or whatever space available to you scatter the various "plant parts" roots, stems, leaves, buds, and flowers (have enough parts for each group to construct a complete plant).
- Let each group collect the five different parts of the plant that they will need to complete their mobile. Or
- If you think it will create disturbance then you can prepare the sets before hand and distribute to the groups.
- Each group will need a hanger and five pieces of yarn to tie each part together.
- **Write the instructions on the board and explain:**
- **Color each part.**
- **Label each part by writing on the line provided on each part** (list of words, root, stem, bud, flower, leaves should be there on the black board to help students).
- **Attach each part together by tying it with yarn through holes.**
- **Hang it by tying it on the hanger or stick.**
- **Write your names on it.**

Wrap-up/A

- After the students have completed their mobile.
- Ask each group to show their mobile to the class and tell them the name of each part.
- As the information is shared, acknowledge, repeat, and reinforce the responses of the students.
- Display these mobiles by hanging on prominent places in class.

Level 1		Life systems
Term 2	Assessment	Human Body &Plants
Week 1		
Day 5		

Assessment Worksheet

How would you look like without bones? Put a tick on the right picture

Draw and colour three living things and three nonliving things.

Science Lesson Plans

Level 1
Term 2
Week 2

Week	Curriculum Strand	Topic	Day	Specific Objective	Home work
2	Life Systems	Characteristics & needs of Living things (Plants)	1	To identify different parts of a plant (written work)	H.W
2		do	2	To explore different kinds of seeds	
2		do	3	To identify needs of plants by growing seeds	
2		Characteristics & needs of Living things	4	To explore patterns and shapes in leaves.	
2		do	5	Assessment	

Level 1		Life systems
Term 2	Lesson Plan	Plants
Week 2		
Day 1		

Topic: Characteristics and needs of living things.
Objective: To identify different parts of a plant
Activity: (written work)
Materials: Chalk, notebooks, pencils
Procedure:

- Write down the tasks on board and explain.

Task 1:
Draw a plant and label its different parts.

1. Stem
2. Root
3. Leaf
4. Bud
5. Flower

HW: Students will draw a plant in their copies and label it. They will learn the spellings of following words.

1. Stem
2. Root
3. Leaf
4. Bud
5. Flower

Level 1		Life systems
Term 2	Lesson Plan	Plants
Week 2		
Day 2		

Topic: characteristics of living things
Objective: To explore different kinds of seeds.
Activity: Seed collage.
Materials: As many different kinds of seeds as you can find pulses, rice, wheat, glue, white paper sheets, pencils.
(Students to be asked one day ahead to bring material.)

Procedure:
Warm up Q/A.
- Ask the children to recall the lesson about living things.
- Ask what are the characteristics of the living things?
- Ask, Are plants living things?
- Can they make more plants like themselves?
- How do new plants reproduce? (Make more like themselves).
- Plants make seeds.
- New plants grow from seeds.

Brainstorming
- Show them the seeds you have brought and ask the children to look at the seeds they have brought.
- Then ask,
- Are all seeds alike?
- Are all seeds of same size?
- Are all seeds of same shape?
- Are all seeds of same colour?
- Write down student responses on the board.
  Then ask:
- Why do you think these seeds are different?
  (Seeds are different because they belong to different plants & they will grow in to different plants).

- Ask, can you guess the names of seeds?
  Or can you name the plant they will grow into?

Activity:

- Ask the students to carefully look at the shapes and sizes of the seeds.
- Then,
- Ask them to prepare a seed collage.
- They will make drawings on the sheet of paper and then glue the seeds & pulses to fill these shapes.
- Make a display of finished pictures in the class.

- **Follow-up discussion**
- After the completion of activity ask,
- What did you learn from this activity?
- Are all seeds alike?
- Are all seeds of same size?
- Are all seeds of same shape?
- Are all seeds of same colour?

Wrap up Q/A

- Are all seeds of the same shape/sizes/colours?
- If they are different, why?

Level 1		Life systems
Term 2	Lesson Plan	Plants
Week 2		
Day 3		

Topic: Characteristics of living things
Objective: To identify needs of plants by growing seeds.
Activity: **1** Growing seeds
Activity: **2** Recording seed growth
Material:

- Red beans seeds. (Soak beans one night before) or any other seeds easily available.
- Glass jars with lids (empty jam jars).
- Cotton wool

Warm-up Q/A

- Ask the children have you ever grown a plant?
- If yes how?
- Student responses might include by planting seeds, planting stem cuttings.
- Then show them the seeds you have brought and ask
- Why aren't these seeds growing now?
- How can you start them growing?
-

Explanation/Brainstorming

- Ask, What do seeds need to grow?
- List their ideas on the board.
- Then ask, how would you take care of seeds while they are growing?

  Write their responses on the board e.g.

Helping seeds to grow
Seeds Need • Water • Light • Food • Warmth • Air

Activity: 1

- First model how to plant bean seeds for the children by following these steps.

1. Place cotton wool in a glass jar.
2. Place about three of the soaked beans between the cotton wool and the jar.
3. Pour little water into the glass jar making sure it does not cover the seeds.
4. Ensure that the cotton wool is moist.
5. Put the lid on the jar.

Then

- Divide the students into groups and ask each group to plant their bean seeds in a similar way.
- Explain the children that more than one seed has been planted in the jar since some might not grow as quickly as the others and some may not grow at all.
- Ask the children to check the moisture in the jars every day and add water to keep them moist.
- Leave them in the class shelf near the window if possible.

- **Follow up discussion**
- Ask,
- What did you learn from this activity?

Activity: 2

- Ask the students to draw a chart (given below) in their copies to record the growth of the seeds during the **whole week** or two weeks.
- Start from the day the seed is planted.
- Tell them to write the date in the first box and then draw the seed they have planted.
- They will record the day and date every day and draw their seed the way it looks like on that day.

My Growing Seed

Day/Date							
Growing seed							

Wrap-up Q/A

- Ask,
- What will you learn by recording the growth of seed?

Level 1		Life systems
Term 2	Lesson Plan	Plants
Week 2		
Day 4		

Topic: characteristics and needs of living Things
Objective: To explore patterns and shapes in leaves
Activity: Exploring leaves
Materials: Different types of leaves - preferably those chosen by the children
Magnifying lens if available

Procedure:

Warm up Q/A

- Show different leaves to the students and ask.
- Do all these leaves look alike?
- How are they different?
- Are all leaves green?
- Do leaves ever change colors?
- Write student responses on the board.

Activity: 1

- Divide the students into pairs.
- Give instructions.
- Students will explore collection of leaves and sort them in different categories by looking at their **shapes and sizes** e.g. small, big, round, long, wide, narrow, with uneven edges and with smooth edges etc.
- They will observe different **parts of the leaf such as veins, leaf blade.**
- They can use magnifying lens to observe leaves by sharing it if available.
- After this they will select their favorite leaf and draw it in their copies
- Label its parts veins, leaf blade.
- OR
- They can prepare leaf rubbing on paper with their favorite leaf.

Follow-up discussion

- Ask, What did you learn from this activity.

- Ask the students to share their work with class explaining;
- Why they chose that particular leaf as a favorite for the leaf drawing.
- What did they notice the most on the leaf rubbing?

Explanation

- Then explain:
- The variety to be found among the leaves of plants is enormous. Leaves come in many different shapes, sizes, and colors.

- There are large leaves, small leaves, slender leaves and wide ones. Leaves can be soft, prickly, hairy, and hard.
- By showing a leaf explain its parts, veins, leaf blade and edges.

Wrap-up

- Ask
- Do all leaves look alike?
- How are they different?

Note: If this lesson cannot be done when the leaves are collected, keep them soft by putting them in solution of one part glycerin to two parts water. Layer the leaves in a shallow pan, cover with glycerin solution, and soak for 24 hours. Remove and press between newspapers for 3 days. The colors will not be as bright as they were when they were collected, but the leaves will be soft and pliable

Level 1		Life systems
Term 2	Assessment	Plants
Week 2		
Day 5		

Q-1) Draw and colour a plant and label its different parts.

Q-2) What do seeds need to grow?

____

____

____

____

Science Lesson Plans

Level 1
Term 2
Week 3

Week	Curriculum Strand	Topic	Day	Specific Objective	Home work
3	Life Systems	Characteristics & needs of Living things (Plants)	1	To explore leaves	H.W
3		do	2	To identify parts of flower	
3		do	3	To identify needs of plants for growth	
3		Characteristics & needs of Living things (Plants)	4	To identify needs of plants for growth	H.W
3		do	5	Assessment	

Level 1		Life systems
Term 2	Lesson Plan	Plants
Week 3		
Day 1		

Topic: characteristics and needs of living Things
Objective: To explore patterns and shapes in leaves
Activity: 1 Leaves collage
Activity: 2 Written work
Materials: Different types of leaves - preferably those chosen by the children
Magnifying lens if available, paper, glue.

Procedure:
Warm-up Q/A

- Remind the students about yesterday's lesson and ask.
- What did you learn about leaves yesterday?
- Then ask,

Activity: 1

Arrange leaves on paper and stick with glue.
Display in the class window or soft board.

Activity: 2 Worksheet

- **Wrap-up Q/A**
- **How are leaves different?**

H.W: Revise the work done in class.

Level : 1 Term : 2
Day : 3 Day : 1

Leaves

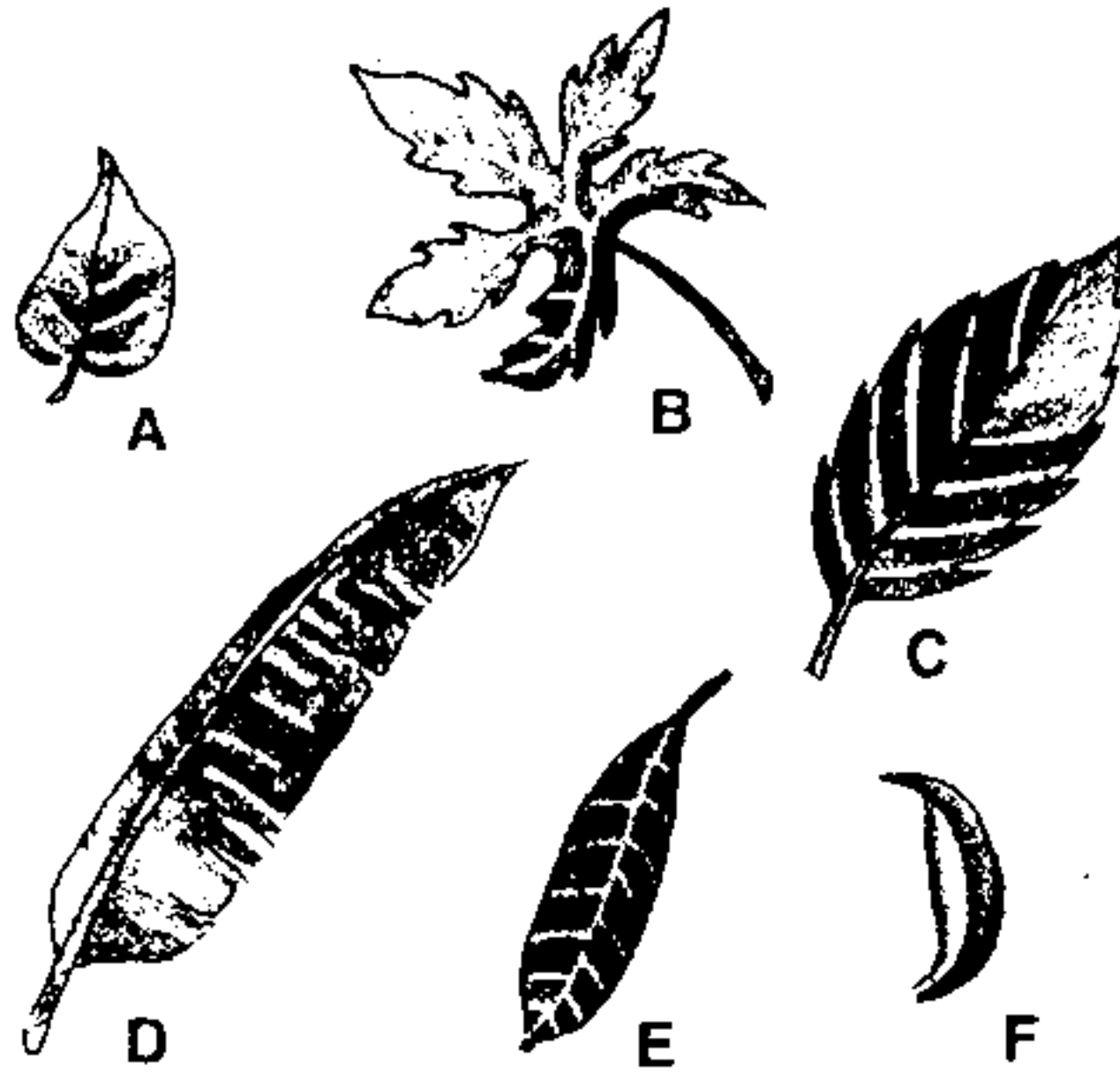
Worksheet

Look at these leaves and find:

Which leaf is smallest? Which leaf has round edges? Which leaf is longest? Which leaf has many leaves?

____

____

____

What are these lines on leaves called?

____

Level 1		Life systems
Term 2	Lesson Plan	Plants
Week 3		
Day 2		

Topic: Characteristics and needs of living things

Objectives: Students will be able to identify the parts of a flower.

Activity: Exploring flowers
Material: Different fresh flowers. At least, one for each child.

Procedure:

Warm up Q/A

- Remind the students about parts of plant lesson
- Ask, what are different parts of a plant?
- Refer to the plant mobile they have made
- Ask, What is the top part?
- Then tell today we will look at the flowers to see how many different parts do they have.

Activity:

Brainstorming

Ask the students to look at their flowers.

- Are all flowers alike?
- Are all flowers of same size?
- Are all flowers of same shape?
- Are all flowers of same colour?
- Write down student responses on the board.
  Then ask:
- Why do you think these flowers are different?
  (Flowers are different because they belong to different plants)

- Ask, can you guess the names of theses flowers?

Ask, What parts do you see?
Colorful parts are called petals,
Green parts are sepals.

Activity:

- Ask the students to carefully look at the shapes and sizes of the flowers.
- Then,
- Ask them to look and draw their flowers in the copies.
- Afterwards they will press the flowers to prepare a collage for their class.

- **Follow-up discussion**
- After the completion of activity ask,
- What did you learn from this activity?
- Are all flowers alike?
- Are all flowers of same size?
- Are all flowers of same shape?
- Are all flowers of same colour?

Wrap up Q/A

- Are all flowers of the same shape/sizes/colours?
- If they are different, why?

Level 1		Life systems
Term 2	Lesson Plan	Plants
Week 3		
Day 3		

Topic: characteristics of living things.
Objective: Students will be able to identify needs of plants for growth.
Activity: Observing sprouted seeds
Materials: Seeds in jars sprouted by the students, one potted plant,
Procedure:
Warm up Q/A.

- Remind the students about their growing seeds (after a week)
- Ask them to open the record sheets in their copies and bring their seed jars to their seats.
- Make them sit in groups as earlier.
- Ask,
- How did you take care of the sprouting seeds?
- What was the first thing you saw growing out of the seeds?
- What grew next?
- How did the seeds change as they sprouted?

Activity 1:

- Invite volunteers from each group to show their records to the class and share their observations.

Explanation:

- Display your own potted plant and explain,
- Plants need,
- Food, water, warmth, sunlight and air for growth
- Show the plant and tell,
- This plant is getting food from the soil and water – sunlight and warmth from the sun and air from the atmosphere.
- Now refer back to their seeds and ask,
- From where did these seeds get their food?
- Listen to their responses and then explain,
- Seeds have a store of food in them.
- The baby plant gets food from that store and water.
- But after plant grows it has to be planted in the soil, as it needs important elements and water from the soil for its growth.

Wrap-up Q/A

- Ask,
- What do plants need for growth?

Level 1		Life systems
Term 2	Lesson Plan	Plants
Week 3		
Day 4		

Topic: characteristics of living things.
Objective: Students will be able to identify needs of plants for growth.
Activity: Written work
Materials: Worksheet, pencils, colours
Procedure:

- Distribute the worksheet and explain the task.

Level : 1 Term : 2
Week : 3 Day : 4

Needs of Plants
Worksheet

Look at the picture and write, what plants need for growth.

____

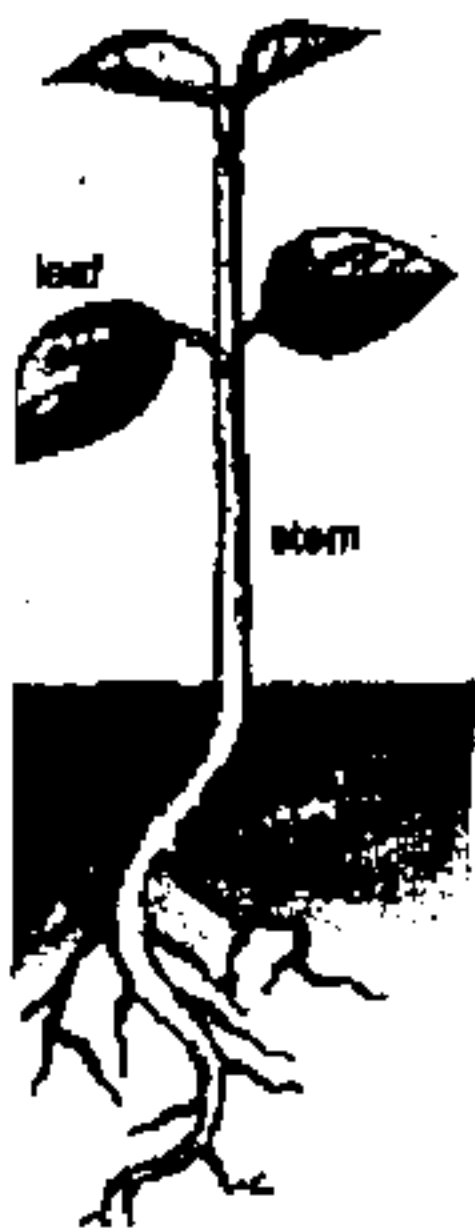
____

____

____

Here is a sprouting seed; arrange the different stages of its growth by giving numbers.

____

____

Level 1		Life systems
Term 2	Assessment	Plants
Week 3		
Day 5		

Use the worksheets for assessment.

Science Lesson Plans

Level 1
Term 2
Week 4

Week	Curriculum Strand	Topic	Day	Specific Objective	Home work
4	Life Systems	Characteristics & needs of Living things (Plants)	1	To explore the plant root system	H.W
4		do	2	To explore the plant root system	H.W
4		Characteristics & needs of Living things (animals)	3	To identify and describe characteristics of animals	
4		Characteristics & needs of Living things (animals)	4	To identify and describe characteristics of animals	H.W
4		do	5	Assessment	

Level 1		Life systems
Term 2	Lesson Plan	Plants
Week 4		
Day 1		

Topic: characteristics of the living things

Objective: To explore the plant root systems

Activity: looking at the roots.

Materials: already grown bean seeds, few carrots radish or tumip (any root available) and a large plant with roots placed in a glass jar.

Procedure:

Warm up Q/A.

- Ask the children to bring their bean jars to their seats.
- Ask what do they see in these plants? (They should namê the parts).
- Tell them to look at the roots of the bean plants.
- Ask,
- How do they look like? (Long and thin).

Explanation

- Explain,
- Most plants have long and thin roots and these roots grow as the plant grows and become thick and big.
- Show your plant with roots to the children and ask,
- What do these roots look like? (Long and thin but bigger than the bean seeds)
- Then tell them that there are some other kinds of roots also. These are thick roots.
- Show them the carrots or other roots you have brought.
- Then ask,
- What job do roots do?
- Explain,
- Roots of a plant help to:
- Absorb water from the soil, which has mineral salts. Minerals are important for the growth of the plant.
- Hold the plant firmly in the round.
- Remind the children that they must have seen when we water the plants we pour water in the soil so that it could be taken by the roots of the pan

Activity: Distribute the worksheet and explain the task.

Wrap up Q/A

- Ask,
- What are different types of roots? Thin and Thick
- What job do the roots do?

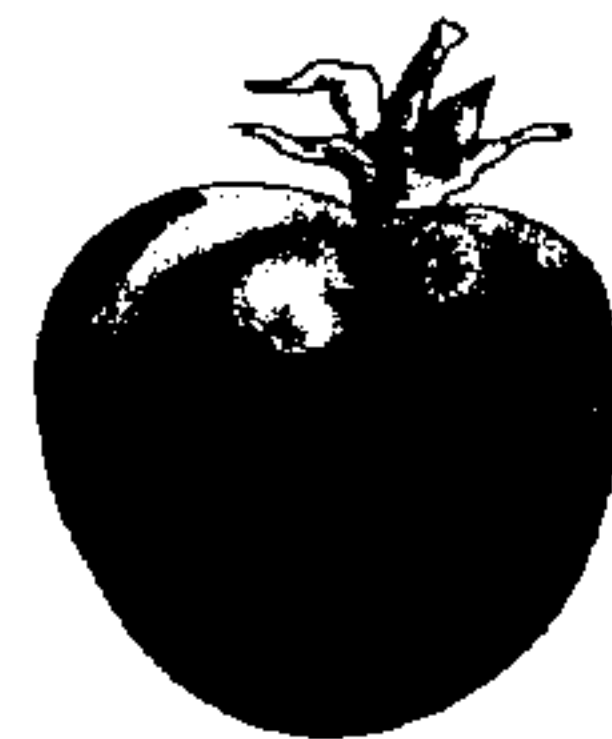
H.W: Revise the work done in class

Level : 1 Term : 2

Week : 4 Day : 1

Plant Root System

Worksheet

Which one of these are roots? Put a tick.

Level 1		Life systems
Term 2	Lesson Plan	Plants
Week 4		
Day 2		

Topic: characteristics of the living things
Objective: To explore the plant root systems
Activity: Written work
Materials: worksheet
Procedure:

Q.1: Draw any two of the following roots in your copies

- Bean plant roots
- Carrot
- Radish
- Turnip

Q.2: what two main jobs the roots do. (Put a tick)

a) Hold the plant in ground
b) Absorb sunlight
c) Absorb water from the soil
d) Prepare food

Choose the right word and fill in the gaps.

a) Carrot is a ______________________root (thin, thick)
b) Bean plant has thin________________ roots (thick, thin)
c) Turnip is a ______________________ root (thin, thick)

H.W: Revise the work done in class.

Level 1		Life systems
Term 2	Lesson Plan	Animals
Week 4		
Day 3		

Topic: characteristics of living things.
Objective: To identify and describe characteristics of animals
Activity: Brainstorming, written work
Materials: Worksheet, chalk, pencils colours
Procedure:
Warm up Q/A.

- Start your lesson by asking students
  Do you have any animals at home?
- Invite the children to name the animals they have at home or if any of them do not have which kind of animals they would like to have at home.
- Record the list on the board e.g.

	Animals at home
	Cat
	Dog
	Goat
	Sheep
	Cow
	Hen
	Parrot

- Keep on building the list and see how many they can think of. Give chance to each student to contribute.

Explanation/Brainstorming

- Explain,
- All these animals can be kept at home
- Some are kept because they are useful such as cows give milk, hens for eggs etc.
- Other animals such as dogs, cats and birds like parrot are kept as pets because we like to keep them.
- Then tell the students to look at the list and ask.
  Do you think these animals are different from each other in any way?
- Are they of same size?
- Some are small some are big.
  Do they have different colours?
  Do they have different skins?
- Some have fur (cat, dog)
- Some have feathers (birds)
- Some have hair (cow, goats)
- Tell them animals are different because they have different sizes, skins and body parts.
- Some have two legs such as birds.

- Some have four legs such as dogs, cats, cow etc.
- Birds can fly but other animals cannot. They have beaks others have teeth.
- Explain, there are many other animals also but all animals cannot be kept at home. (Keep your explanation very simple, as children at this level will not be able to understand detail. Try to elicit responses more from the students).

Activity: worksheet

Distribute the worksheet and explain the task.

Wrap-up Q/A

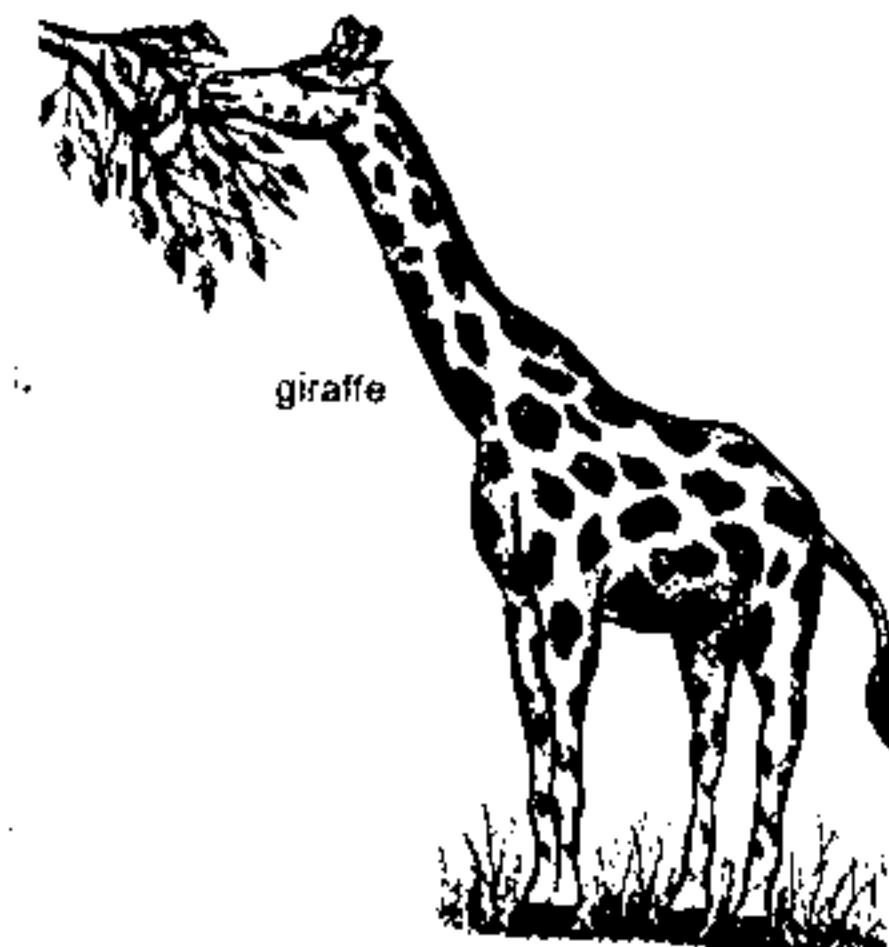
- Which animals can be kept at home?
- Are all animals alike?
- How are animals different?

Level : 1 Term : 2

Week : 4 Day : 3

Animals are Different

Worksheet

Which of these animals can be kept at home? Put a tick

What type of coats these animals have? Choose from the list and write in the given space.

a) Dog______________________

b) Hen______________________

c) Parrot______________________

d) Cow______________________

e) Cat______________________

List: Fur, hair, feathers

Level : 1 Term : 2
Week : 3 Day : 4

Animals are Different

Worksheet

How are these animals different? Read the questions and put a tick to spot their difference.

Which animal has the longest neck?

. Which animal has horns on its head?

. Which animal has long legs?

. Which animal flies?

. Which animal hops?

i. Which animal swims?

Level 1		Life systems
Term 2	Lesson Plan	Animals
Week 4		
Day 4		

Topic: characteristics of living things.
Objective: To identify and describe characteristics of animals
Activity: written work
Materials: chalk, pencils colours
Procedure:

- Write the tasks on board and explain.

Task1:

Draw and colour one animal you would like to keep at home. Choose from the given pictures.

Task: 2

Then fill in these gaps to describe your animal.

a) I would like to keep a ______________ at home.
b) It is ______________ in size. (Small, big)
c) It has ______________ on its body. (Fur, hair, feathers).
d) It eats ____________ (grass, seeds, meat)
e) I will keep it in a ________________ (shed, cage, open air)

Task: 3

Choose the right words to fill the gaps

a) A bird has _________ on its body (feathers, beak; teeth, hair)
b) A cat has ______________ on its body (fur, feathers)
c) A cow has _____________ legs. (Four, two).
d) A goat has ____________ on its body. (Feathers, hair)

Level 1		Life systems
Term 2	Assessment	Plants & animals
Week 4		
Day 5		

Use the worksheets and exercises with lessons for assessment.

Science Lesson Plans

Level 1
Term 2
Week 5

Week	Curriculum Strand	Topic	Day	Specific Objective	Home work
5	Life Systems	Characteristics & needs of Living things (animals)	1	To observe characteristics and movement of grass hopper	
5		do	2	To identify and compare basic needs of humans and other living things.	H.W
5		Characteristics & needs of Living things (humans)	3	To understand some basic changes in humans as they grow	
5		Characteristics & needs of Living things (humans)	4	To understand some basic changes in humans as they grow	H.W
5		do	5	Assessment	

Level 1		Life systems
Term 2	Lesson Plan	Living things
Week 5		
Day 1		

Topic: Characteristics and needs of living things
Objective: To observe characteristics and movement of grass hopper

Activity: Observing a grasshopper.

Materials

1. Clean glass jar
2. Cheesecloth
3. Rubber band
4. Grass and twigs
5. Scissors
6. Soil
7. Magnifying glass

Procedure:

Inform the students that today they are going to observe a grasshopper.

Preparation:

1. Cut a square piece from the cheesecloth to make a top for your jar.

2. Use your trowel to get a chunk of earth with some grass on it.

3. Put the soil and grass in your jar. Add a twig or two.

4. Catch a grasshopper. Put it in your jar. Put the cheesecloth on the top of your jar. Secure it with a rubber band.

Activity:

5. Explain to the children that you have created this as a classroom home for a living thing.

6. Ask them to,

7. Use your magnifying glass to study and check out the grasshopper's body parts.

8. Ask questions to guide them while they are observing. Keep explaining different characteristics also.

9. Ask,

10. Can you see three basic body parts?

11. These are called the **head, the thorax, and the abdomen.**

12. Are these body parts soft or hard? The grasshopper's outer body is hard.

13. We call this tough, almost shell-like body an **outer-skeleton**. It protects the insides of the grasshopper's body.

14. Look at the grasshopper's **head**. What do you see? It should have **a mouth, eyes, and a pair of antennae.**

15. Check out the **thorax.** What do you see? There are three pairs of legs and two pairs of wings.

16. What is so different about the back legs from the other legs? These big, thick legs are used for jumping.

17. Look at the **two pairs of wings.** Are they the same?

18. Which pair is long and thin and very stiff looking? The top wings are the biggest. The lower wings are delicate, see-through, and almost look like fans when the grasshopper is flying.

19. Carefully look at the **abdomen**. Do you see a little opening on each segment? These little openings are called trachea. The grasshopper breathes through these little holes or trachea.

Follow up discussion:

- Ask the students,
- What did you learn from this activity?
- Draw a chart on the black board and invite the students to share their information e.g.

Grasshopper
Three body parts Head, thorax, abdomen Outer skeleton A mouth, eyes, and a pair of antennae Two pairs of wings

- Keep on building this list with student responses.
- To get their responses ask questions such as,

- How many body parts it has?
- Are these body parts soft or hard?
- What do you see at the grasshopper's head?
- How many wings it has?
- How many legs it has?
- What do you see at the abdomen?
- How does it move?

Activity: Distribute the worksheet and explain the task.

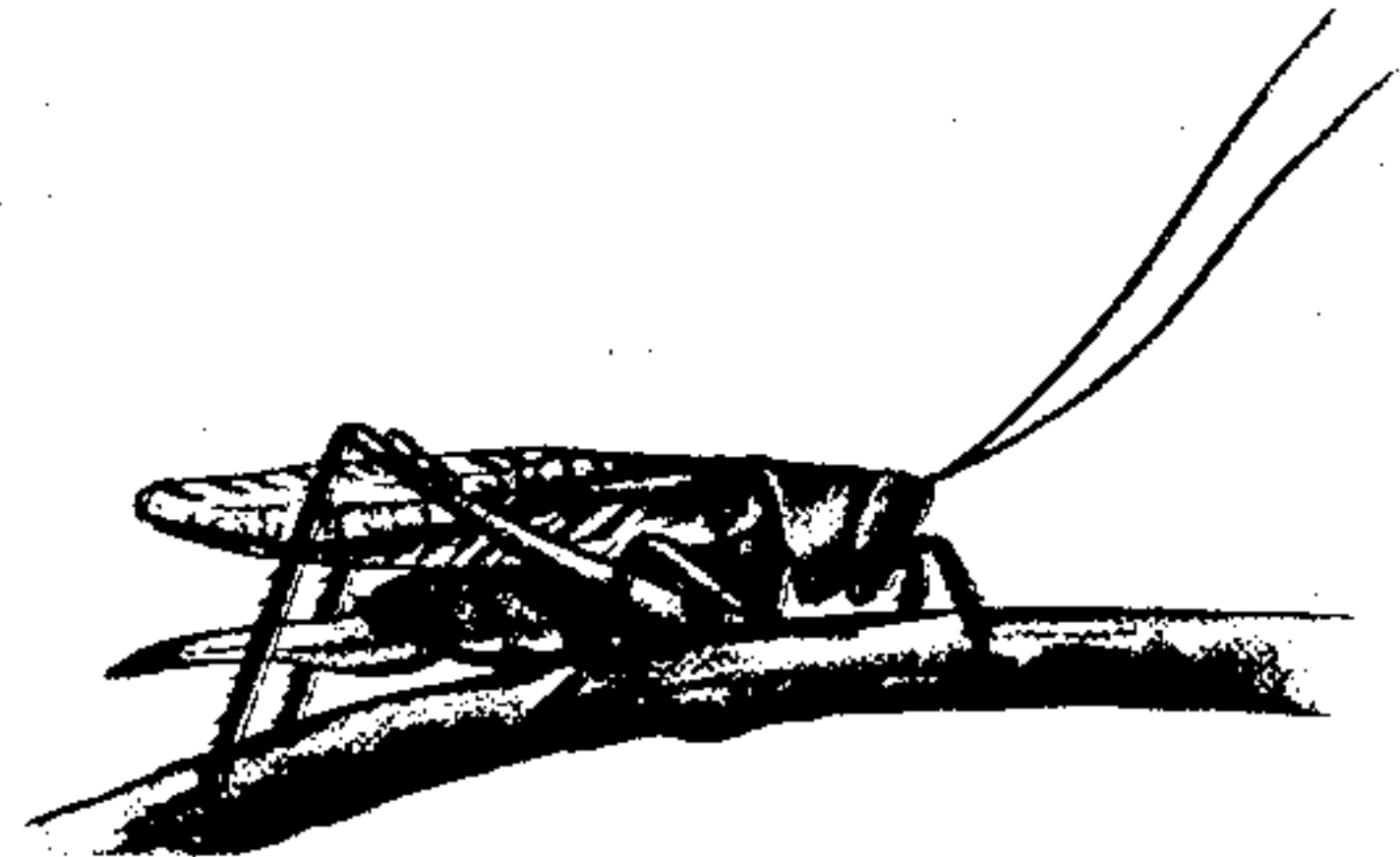
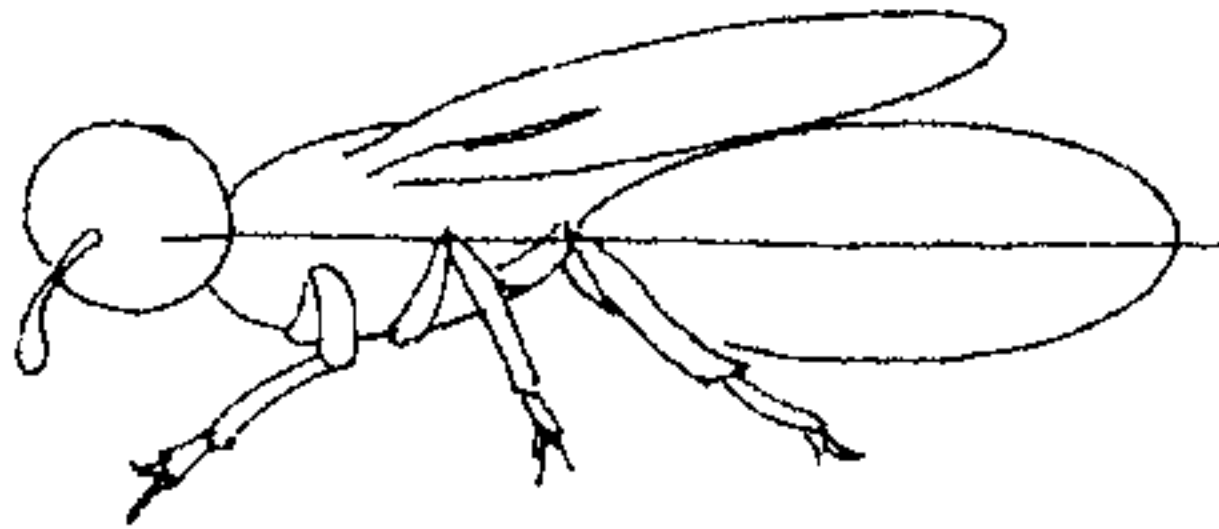
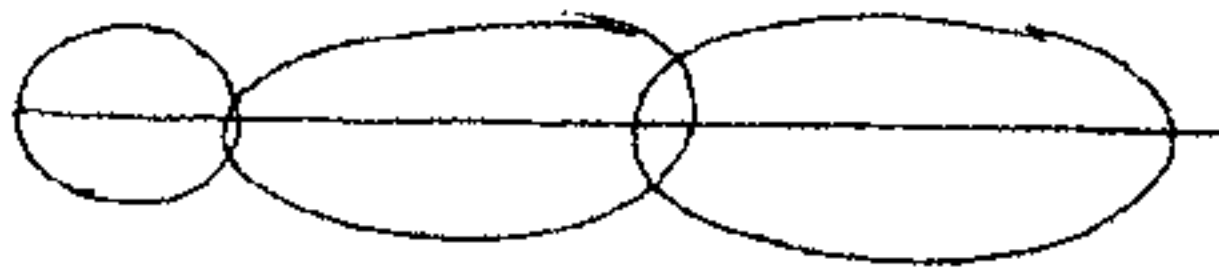
Wrap-up Q/A

What did you observe about the grasshopper?

Level : 1 Term : 2
Week : 5 Day : 1

Grasshopper Worksheet

Look at the pictures and draw your own grasshopper in the given space. Label its body parts by choosing words from the list.

See illustration

List: head, Thorax, abdomen, wings, eyes, antennae, legs.

Level 1		Life systems
Term 2	Lesson Plan	Living things
Week 5		
Day 2		

Topic: characteristics of living things.
Objective: To identify and compare basic needs of humans and other living things.
Activity: Brain storming – written work..
Materials: Chalk, board
Warm up Q/A.

- Start your lesson by recalling the previous lesson about animals.

Draw this chart on the board

Plants need	Animals need	We need
Food	Food	Food
Sunlight	Water air	Water, air
Water	To move	To move
Air	Sleep	To meet people
	To be clean	To sleep
		To be clean
		To wear clothes
		To live in homes

- Ask the class
  What do animals need to live?
- Write student responses on the board.
- Ask the students to recall about plants and tell what do plants need?
- Then ask, what do we need as human beings to live?
- Keep on building the list by adding student responses.
- Add your points too.
- Then compare the list.

Explanation

- Explain that all living things need food, water, and air.
- Human beings also need these basic things but apart from these their needs are more.
- **Discuss** and compare the list.
- Explain, why do humans need all this.
- Food gives energy to us to work.
- We need air to breathe.
- Humans need shelter in the form of homes for protection and safety.

- We wear clothes to cover our selves. In winter clothes keep us warm and in summer clothes protect us from the heat of sun.
- We need to keep ourselves clean to stay healthy.
- We need sleep to have rest.
- We need to meet other people to get benefits, to learn and to be happy.

Activity: Written work.

- Distribute the worksheet and explain the task.

Wrap-up Q/A

- Ask,

What do animals need to live?
What do plants need to live?
What do humans need to live?

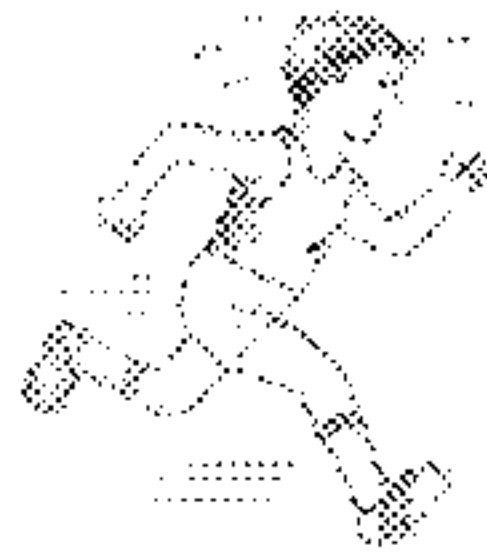
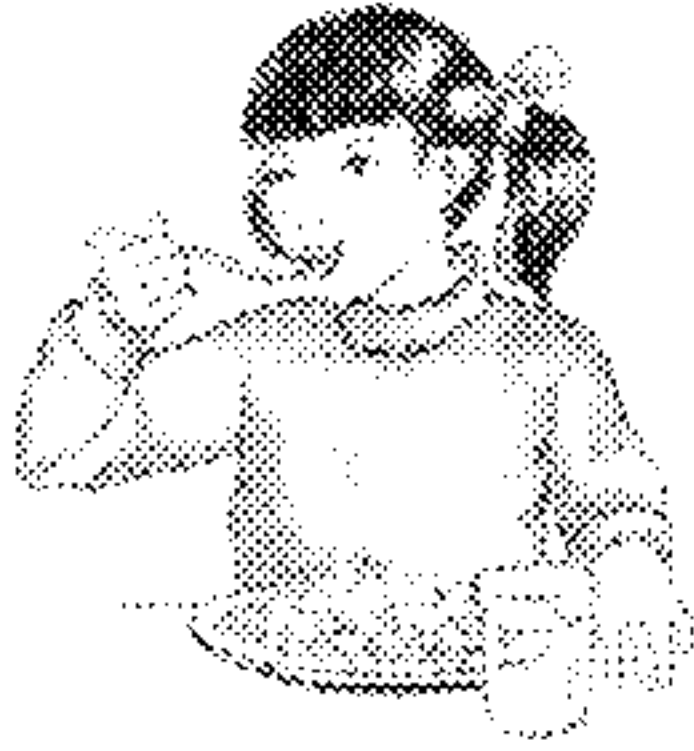
Level : 1 Term : 2
Week : 5 Day : 2

Needs Of Living Things
Worksheet

Look at the picture and describe what human beings need to live

____

____

____

Write down the needs of plants and animals. Choose words from the list.

List: food, water, air, shelter, sleep, sunlight, heat energy, soil.

Plants need	Animals need

Level 1		Life systems
Term 2	Lesson Plan	Living things
Week 5		
Day 3		

Topic: characteristics and needs of living things
Objective: To understand changes in humans and other living things as they grow
Activity: Brain storming – written work.
Materials: Chalk, board
Procedure:
Warm up Q/A

- Remind the students about the seeds they grew.
- Ask,
- Do you remember what happened to the seeds you grew?
- Did they change?
- Did they grow?
- Have you seen plants in the fields where you live?
- Are they always of the same size?
- (They grow)
- Do you know about other things, which grow in size? Other than plants?
- Have you seen animals growing?
- How old are you?
- Were you of the same size few years back?
- How are you different now from then?
- Did you have teeth when you were one year old?
- Were you able to walk when you were a baby?

Brain storming/discussion

- Ask the children to think of things they can do now but they were not able to do when they were one year old.
- They should also think how they have changed now.
- Write their responses on the board e.g.

When I was a baby	When I am 5/6 years old
Small in size Did not have teeth Could not talk	Bigger in size Have teeth Can talk

- Keep building your list to see how much changes they can tell you.

Explanation:

- All living things grow.
- Plants grow from seeds to large trees.
- Animals grow from babies to large animals.
- Human beings also grow from babies to adults.
- All babies look like their parents.

Activity: Written work

Which of the following things grow? Encircle.

a) A boy
b) A cup
c) A tree
d) Your finger nails
e) Shoes
f) A stone
g) A car
h) Your teeth
i) A leaf
j) A pencil
k) A flower

Fill in the gaps.
A baby boy grows into a ____________________.

A baby girl grows into a____________________.

A chick grows into a________________________.

Wrap up Q/A

- Do all living things grow?

- How do they change when they grow? (Change in size, shape, body parts, age, change in kind of things they can do)

Level 1		Life systems
Term 2	Lesson Plan	Living things
Week 5		
Day 4		

Topic: characteristics and needs of living things
Objective: To understand changes in humans and other living things as they grow
Activity: preparing a height chart
Materials: Chart papers, markers, chalk, ruler or measuring tape
Procedure:
Warm up Q/A

- Remind the students about previous lesson and ask.
- How do living things change when they grow?
- Then tell we will do an activity to make a height chart.

Activity:

- Make a height chart for your classroom wall with help of your students.
- Assign them tasks according to their abilities.
- Take large sheet of paper or join three chart papers.
- Put inch marks and feet on it lengthwise.
- Paste it to your classroom door inside the class.
- Invite the students to come one by one and measure their height.
- Prepare a list of students' names and heights and stick it on the classroom soft board.

Follow up discussion

- Ask,
- What did you learn from this activity?
- Are all the students of same height?
- Why does your height keep changing? (Because you grow)
- Tell the students to measure themselves and their friends after few months and see.
- Did you grow?
- Did your friend grow?
- Who grew the most?
- Did any one grow shorter?

Wrap-up Q/A

- What did you find today?

Level 1		Life systems
Term 2	Assessment	Living things
Week 5		
Day 5		

Assessment worksheet

Q-1) Which of the following things grow? Encircle.

l) a boy

m) a cup

n) a tree

o) your finger nails

p) shoes

q) a stone

r) a car

s) your teeth

t) a leaf

u) a pencil

v) a flower

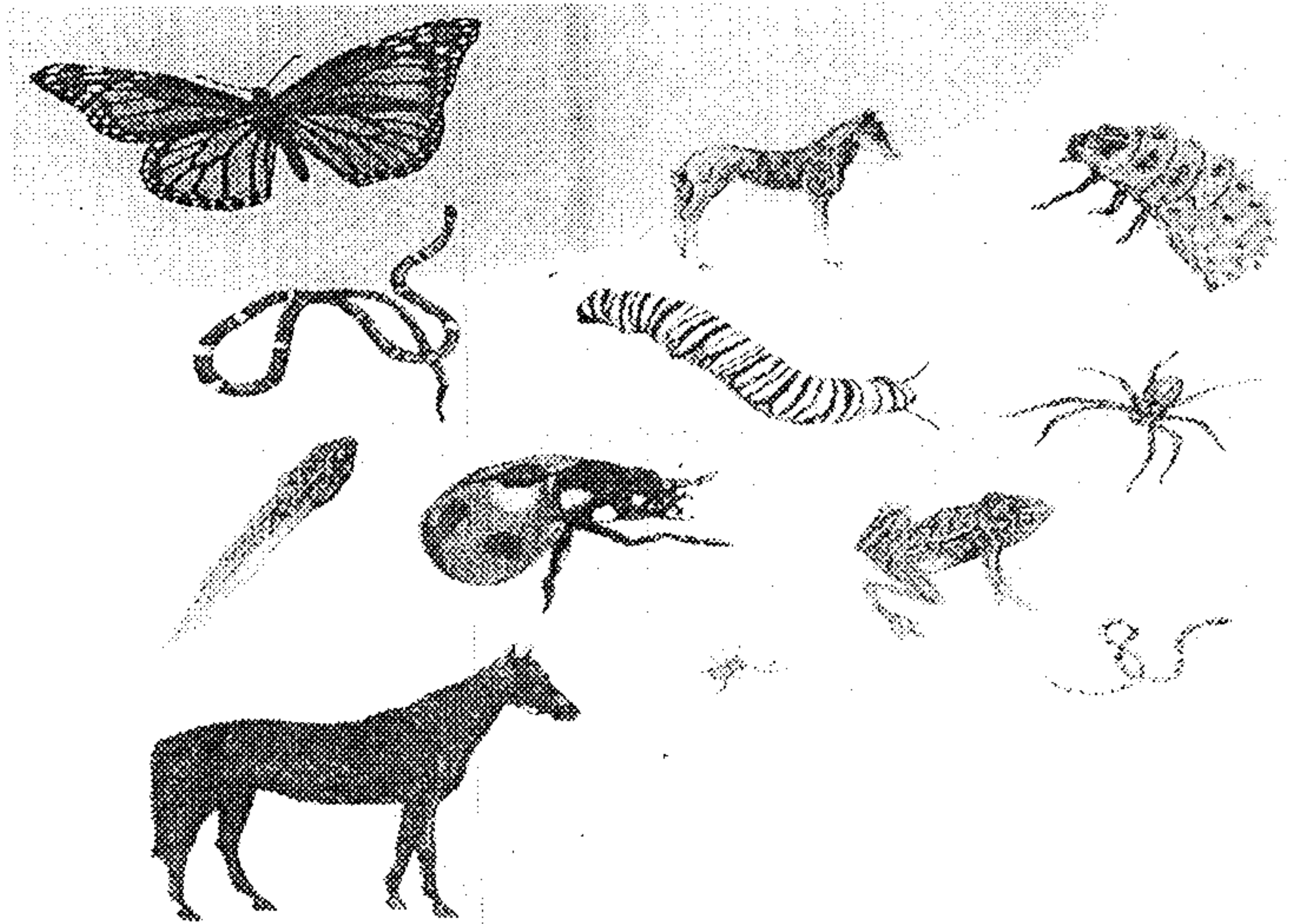
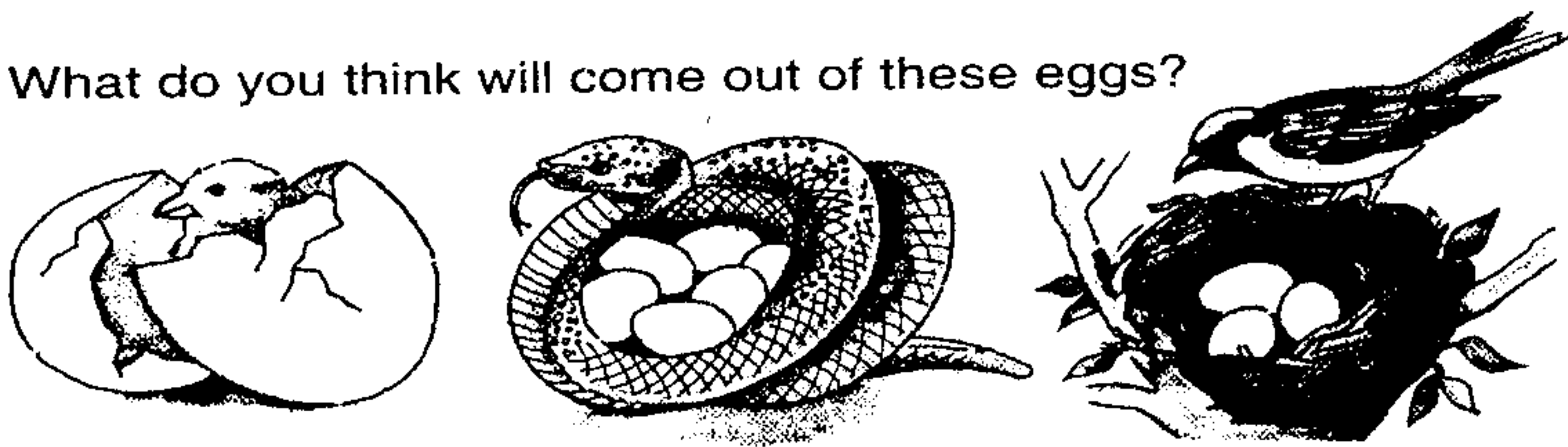
Q-2) Write some of the things you can do now but could not do when you were a baby.

____

____

____

____

Match the baby with the parent.

What do you think will come out of these eggs?

Science Lesson Plans

Level 1
Term 2
Week 6

Week	Curriculum Strand	Topic	Day	Specific Objective	Home work
6	Matter and Materials	Characteristics of objects and properties of materials	1	To understand the difference between objects and materials	
6		do	2	To understand the difference between objects and materials (written work)	H.W
6		do	3	To describe objects and materials by using sense of sight	
6			4	To describe objects and materials by using sense of sight	H.W
6		do	5	Assessment	

Level 1		Matter and Material
Term 2	Lesson Plan	
Week 6		
Day 1		

Topic: characteristics of objects and properties of materials.
Objective: To understand the basic differences between objects and materials.
Activity:
Materials: Different objects which can be easily available, such as coins, marbles, match boxes, handkerchief, plastic bag, pencil, eraser, scissors and chalk etc.
Procedure:
Warm-up Q/A

- Start your lesson by showing objects to the students and ask.
- What are these?
  (Their responses may include these are things or objects)

Activity 1:

- Draw this chart on the board

Objects	Materials
Pencil	Wood, lead

- Show each object and ask what are these made up of? Ask the students to name it and name its material e.g. pencils – wood, lead etc.
- Write student responses on the board.

Explanation

- Then explain:
- These items or things are called objects.
- What make up these objects are the materials.
- There are different materials around us and we make different objects with these materials.

Activity: 2 (Large group activity)

- Ask the students to look around in the classroom and find the objects.
- Then think of the materials these objects are made up of. (Give them 5 minutes)
- Write down student responses in the chart on the board e.g.

Objects in the class	Materials
Chair	Wood
Desk	Wood
School bag	Cloth – plastic

Note book	Paper
Books	Paper, cloth,
Duster	Wood, cloth

- Keep on building your list by adding student responses.
- Also add the objects you have brought to the class to the list.
- If students find it difficult to identify the material, help them to do so by giving clues.

Wrap-up Q/A

- Ask,

What are objects?
What are materials?

Level 1		Matter and Material
Term 2	Lesson Plan	
Week 6		
Day 2		

Topic: characteristics of objects and properties of materials.
Objective: To understand the basic differences between objects and materials.
Activity: Written work
Materials: pencils, colours
Procedure:

- Remind the students about yesterday's lesson.
- Write the task on board and explain.

Task: 1

- **Draw any two objects that you see in your class.**

- **Choose the words from the list and write what are these made up of?**

Objects	Materials
Chair	
Ball	
Pencil	
Book	
School bag	

List: wood, lead, plastic, paper, cloth.

H.W: Revise the work done in class.

Level 1		Matter and Material
Term 2	Lesson Plan	
Week 6		
Day 3		

Topic: Characteristics of objects and properties of materials.
Objective: To describe objects and materials by using sense of sight
Activity: Looking at objects
Materials: Different objects such as coins, marbles, pencil, and available fruits or vegetable, any pieces of clothes, ball of cotton (choose objects which are easily available.

Procedure:

Warm up Q/A

- Remind the students of five senses.
- Ask them to name the five senses
- Ask which organ we use for sense of sight?
- Then tell them that today we are going to do an activity in which they will only use their sense of sight to describe different objects and materials.

Activity 1:

Draw this chart on the board

Object	Description
Pencil	Long, thin
Marble	Round,
Coin	Round, shiny

- Show each object to the class and ask the students to describe objects by looking at their shape, size, colour, surface etc.
- Ask,
- What is its shape?
- What is its colour?
- What is its size?
- In this way build up your list on the board.

- **Explanation**
- Explain
- Sense of sight helps us to identify and describe objects and materials around us.
- Objects have different shapes, sizes and colours.
- Materials have different colours and textures.

Wrap-up Q/A

- Ask,

How does sense of sight help us?
What do you look for to describe objects and materials?

Level 1		Matter and Material
Term 2	Lesson Plan	
Week 6		
Day 4		

Topic: Characteristics of objects and properties of materials.
Objective: To describe objects and materials by using sense of sight
Activity: Written work
Materials: Chalk, pencils, colours
Procedure:

- Explain the task.
- **Task:**
- Draw any five objects (find in your school or classroom)
- Describe them by using your sense of sight.
- For example,
- Tree- Tall, green,
- Chair-big, brown

Note: Write down helping vocabulary on the board.

H.W: Revise the work done in class.

Level 1		Matter and Materials
Term 2	Assessment	
Week 6		
Day 5		

- **Choose the words from the list and write what are these made up of?**

Objects	Materials
Chair	
Ball	
Pencil	
Book	
School bag	

List: wood, lead, plastic, paper, cloth.

Describe these objects by using your sense of sight. Use the suitable helping words.
Long, thin, wide, large, square, rectangle, round, green, red, yellow, black.

Objects	Description

Science Revision plan

Level 1
Term 2
Week 7

Week	Curriculum Strand	Topic	Day	Specific Objective
7	Life systems	Characteristics and needs of living things	1	Revision
7	Life systems	do	2	Revision
7	Life systems	do	3	Revision
7	Life systems	Do	4	Revision
7	Life systems	do	5	Revision

Science Revision Plan

Level 1
Term 2
Week 8

Week	Curriculum Strand	Topic	Day	Specific Objective
8	Matter and materials	Characteristics of objects and properties of Materials	1	Revision
8	do	do	2	Revision
8			3	Revision
8			4	Revision
8			5	Revision
8			6	Revision

Mid Year Examination